

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/521108
REC'D 10 DEC 2004

WIPO PCT

REC'D PCT/PTO 11 JAN 2005



Applicant's or agent's file reference FR920020011/GZ		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/08477	International filing date (day/month/year) 10.07.2003	Priority date (day/month/year) 11.07.2002	
International Patent Classification (IPC) or both national classification and IPC G06F3/023			
Applicant INTERNATIONAL BUSINESS MACHINES CORPORATION			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 16.12.2003	Date of completion of this report 30.11.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840	Authorized Officer Eraso Helguera, J Telephone No. +49 30 25901-491 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/08477**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-15 as originally filed

Claims, Numbers

1-10 filed with telefax on 16.11.2004

Drawings, Sheets

1/9-9/9 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/08477**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	8-10
	No: Claims	1-7
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US-A-5 892 502 (HILLER JEFFREY H) 6 April 1999 (1999-04-06)

D2: US-B-6 243 2581 (PARATORE ROBERT M) 5 June 2001 (2001-06-05)

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-7 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D2 is regarded as being the closest prior art to the subject-matter of claims 1-7, and discloses (the references in parentheses applying to this document):

- 2.1. A peripheral device (2.4) connectable to a central processing unit (400) and to a main display (see column 5, line 17) of a data processing system (10) including a mechanical keyboard having a plurality of keys (4) for entering information into the data processing system when the keys are pressed, wherein the peripheral device further includes has a first surface (2) and a second surface (4) opposed to the first surface (see figure 3), the first surface carrying the mechanical keyboard (4) and the second surface carrying the a configurable unit (2), the configurable unit being separate from the main display (see column 5, line 17), wherein the mechanical keyboard is accessible to a user of the data processing system when the peripheral device is in a first operative position with the first surface turned upwards (see figure 2) and the configurable unit is accessible to the user when the peripheral device is in a second operative position with the second surface turned upwards (see figure 3). [claim 1]

The configurable unit includes a touch-screen (4) [claim 2].

The peripheral device further includes means for spacing the keys apart from a surface bearing the peripheral device in the second operative position (see column 4, lines 23-26). [claim 3]

The peripheral device further includes switching means for alternatively enabling

the mechanical keyboard or the configurable unit (see figure 5) [claim 4], the switching means including a sensor for detecting the position of the peripheral device, the mechanical keyboard being enabled when the peripheral device is in the first operative position and the configurable unit being enabled when the peripheral device is in the second operative position (see column 4, lines 27-42) [claim 5].

The peripheral device further includes means for displaying output information on the configurable unit (4) [claim 6].

A data processing system (10) including the peripheral device [claim 7].

- 2.2. The peripheral device of the application differs from that of D2 in that: the configurable unit displays a visual representation of a plurality of further keys for entering information into the data processing system when the further keys are selected.

This feature is well-known to the skilled person in the field of touch screens under the name of "virtual keyboard" (see for instance D1, abstract), and its inclusion in the device of D2 would be a normal design option.

Therefore, the subject-matter of claims 1-7 is not inventive (Article 33(3) PCT).

3. The combination of the features of dependent claims 8-10 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:
- 3.1. No other document in the prior art discloses the use of a central unit and means for pivoting the peripheral device around the central unit and for sliding an internal edge of the peripheral device along the central unit between a first end of stroke and a second end of stroke, the peripheral device being folded down the central unit in the first operative position or in the second operative position when the internal edge is at the first end of stroke or at the second end of stroke, respectively, in order to solve the problem of the prior art document D2, in which it is difficult to fold the whole unit in order to change the operation mode when there are external devices attached to it [claim 8].
- 3.2. Claims 9,10 are dependent on claim 8 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

CLAIMS

1. A peripheral device (125) connectable to a central processing unit and to a main display (310) of a data processing system (100) including a mechanical keyboard (130) having a plurality of keys (135) for entering information into the data processing system when the keys are pressed,

characterized in that

the peripheral device has a first surface (210) and a second surface (215) opposed to the first surface, the first surface carrying the mechanical keyboard (130) and the second surface carrying a configurable unit (140) for displaying a visual representation of a plurality of further keys (145) for entering information into the data processing system when the further keys are selected, the configurable unit being separate from the main display (310), wherein the mechanical keyboard (130) is accessible to a user of the data processing system when the peripheral device is in a first operative position with the first surface (210) turned upwards and the configurable unit (140) is accessible to the user when the peripheral device is in a second operative position with the second surface (215) turned upwards.

2. The peripheral device (125) according to claim 1, wherein the configurable unit includes a touch-screen (140), the further keys being selected when touched.

3. The peripheral device (125) according to any preceding claim, further including means (225a, 225b) for spacing the keys (135) apart from a surface (103) bearing the peripheral device in the second operative position.

4. The peripheral device (125) according to any preceding claim, further including switching means (500) for alternatively enabling the mechanical keyboard (130) or the configurable unit (140).

5. The peripheral device (125) according to claim 4, wherein the switching means includes a sensor (500) for detecting the position of the peripheral device, the mechanical keyboard (130) being enabled when the peripheral device is in the first operative position and the configurable unit (140) being enabled when the peripheral device is in the second operative position.
6. The peripheral device (125) according to any preceding claim, further including means (150) for displaying output information on the configurable unit (140).
7. A data processing system (100;300) including the peripheral device (125;320) according to any preceding claim.
8. The data processing system (300) according to claim 7, further including a central unit (305) and means (340,345) for pivoting the peripheral device (320) around the central unit and for sliding an internal edge of the peripheral device along the central unit between a first end of stroke and a second end of stroke, the peripheral device being folded down the central unit in the first operative position or in the second operative position when the internal edge is at the first end of stroke or at the second end of stroke, respectively.
9. The data processing system (300) according to claim 8, further including latching means (350f,355t;350r,355k) for latching the peripheral device (320) in the first operative position or in the second operative position.
10. The data processing system (300) according to claim 9, wherein the latching means (350f,355t;350r,355k) includes first command means (405f) for unlatching the peripheral device (320) when in the first operative position, second command means (405r) for unlatching the peripheral device when

in the second operative position, and means (360t,360k) for providing an indication identifying the first command means or the second command means when the peripheral device is in the first operative position or in the second operative position, respectively.